

Strategic Agency and Institutional Change:

Investigating the Role of Universities in Regional Innovation Systems (RISs)

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ABSTRACT

Past analyses rooted in thick description of regions successful in constructing regional innovation systems have given way to analyses more focused on the intentionality in these processes, and how actors in regions with their own wider networks can shape these high-level changes in regional fortunes. As part of this, place-based leadership has emerged as a promising concept to restore both agency and territory to these discussions but it remains under-theorised in key areas. In this paper, we contribute to these debates by arguing that there remains a reduction of agency to organisations, and that place-based leadership research needs to take into account organisational dynamics and interests in for bettering our understanding of the dynamics of place-based leadership in regional innovation systems.

Key words: Place-based leadership, institutional change, institutional entrepreneurship, regional innovation systems, university.

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1. INTRODUCTION

A key challenge for policy-makers and researchers in regional studies is understanding large-scale regional structural changes that cause regional shifts between different regional economic development trajectories. Past analyses rooted in thick description of regions successful in constructing regional innovation systems have given way to analyses more focused on their underlying intentionality, and how regional actors can use their own networks to shape macro-changes in regional fortunes (LAGENDIJK, 2007). As part of this, place-based leadership has recently emerged as a promising concept for meeting the challenge of restoring agency and territory to explanations of how actors seek to rebuild regions by influencing complex networks, creating regional path plasticity and bridging social capital via (semi-)collective territorial innovation assets (BEER and CLOWER, 2014; GIBNEY, 2014; HALKIER, 2013; SOTARAUTA, 2014). Yet place-based leadership remains an under-theorised concept (BEER and CLOWER, 2014; SOTARAUTA, 2014) and in this paper, we contribute to these debates by arguing that to deal with a tendency to reduce agency to organisational leadership, place-based leadership research needs to account for organisational dynamics and interests in improving regional innovation systems (RISs).

Place-based leadership studies fall short in often using retrospective analyses that posit causal links between improved innovation performance, and “good” territorial leadership practices (BENNEWORTH, 2004). This leads to overly simplistic “happy family stories”, claiming leadership interventions mobilise networks that address RIS gaps and barriers and drive regional economic path-shifting (BENNEWORTH et al., 2010). In simplifying highly complex contingent stories, place-based leadership is quickly reduced to narratives of heroic leaders and elite coalitions dynamizing their organisations and regions. But this fails to answer why regional innovation actors, dependent on extra-regional networks would actively

choose to ‘strategically couple’ themselves to particular RISs (YEUNG, 2009) by creating new strategic innovation networks that open up new development possibilities and pathways.

Although regional partners may clearly derive private benefits from strengthened regional innovation systems, the conditions under which globally-networked organisations might choose to strategically engage with regional partners are unclear (HALKIER, 2013). In the context of place-based leadership for RISs, little attention has been paid to how local organisational settings (which we refer in this article as ‘organisational architecture’, following VORLEY & NELLES (2012)) affect individuals’ opportunities to exercise leadership. This has the unwelcome effect of sometimes reducing “leadership” to a restricted managerial class’s strategic desires. Both BEER & CLOWERS (2014) and SUVINEN (2014) highlight that individuals outside this managerial class may be vital in constructing networks that ultimately strengthen regional innovation systems, and that these non-managerial individuals have significant autonomy within their own organisational framing.

We contend that improved understanding of place-based leadership for RISs need open the black box of regional organisational architectures, particularly for organisations with strong external interests, not straightforwardly aligned with region-specific interests. Firms, governments, research organisations and universities may choose to disengage or disinvest from locations for reasons that have little to do with territorial characteristics and everything to do with internal organisational architecture and choices. We argue more attention is needed for understanding how organisational architectures shape key individuals’ capacity to contribute to strengthening RISs, allowing them to use scarce institutional resources to create (semi)-collective territorial assets that change economic development trajectories. Engaging organisations face cost-benefit calculus in allocating its resources: regional and organisational interests may naturally align, creating synergies, or be contradictory, which may create tensions. And it is precisely this tension with which this paper is concerned. Our

research question is: *how does the architecture of organisations within which individuals are embedded affect individuals' capacity to participate in place-based leadership processes?*

We define “RIS problems” here in terms of collective failures to achieve efficiencies within core knowledge assets (RODRIGUEZ POSE, 2013) due to inflexibilities in both immediate organizational architectures and wider social, cultural and political structures in which actors exercise agency. Our focus here is the architecture of one organisational type, the university: in recent years, discourses of strong leadership have emerged in ways that may have failed to consider institutional leaders' wider contexts (GODDARD, 2012), often overemphasising manager-centred downplaying upon how university staff more generally contribute to creating semi-collective territorial assets (PIHNERIO *et al.*, 2013a). Specifically, regional (PINHEIRO, 2012a, c) may bring problems and tensions for universities in delivering their core tasks (PINHEIRO *et al.*, 2013), and in parallel it may create benefits for some and simultaneously problems for others. These imminent tensions frame individual university agents' opportunities to construct new regional innovation networks, and therefore provide an interesting lens to reflect upon our overarching research question.

2. REVIEW: PLACE-BASED LEADERSHIP FOR REGIONAL INNOVATION SYSTEMS

Our approach here reflects a growing recognition of relationships between leadership and place (MABEY and FREEMAN, 2010; COLLINGE *et al.*, 2010; HUNTER, 2012). Earlier studies focused on such aspects as ‘service-innovation’ (HAMBLETON and HOWARD, 2013), ‘micro-politics’ (MURPHY and CURTIS, 2013), the interplay between ‘scale and agency’ (AYRES, 2014), and contextual dimensions including ‘economic growth’ (TRICKETT and LEE, 2010). Our specific focus is the question of how do universities leadership roles in stimulating and strengthening regional innovation systems (*cf.* COOKE *et*

al., 1997). Regional interactive co-generation processes around innovation can facilitate better interactions between regional organisations thereby changing commonly-held structures, meanings and relationships and potentially improving long-term regional innovation outcomes (HAGE and MEEUS, 2009). Attention recently focused on regional actors' connectivity to external agents in global knowledge and production chains (COOKE, 2005; YEUNG, 2009; RODRIGUEZ POSE, 2013), and how regions become 'the place-to-be' to access particular new knowledges (GERTLER, 2003).

Systemic regional innovation can be understood in various ways, whether distinguishing knowledge exploration and exploitation sub-systems (COOKE, 2005), or a core of firms nested within wider social and political structures (LUNDVALL, 2007). RODRIGUEZ POSE (2013) contends that two factors may constrain regional innovation system performance, both deficiencies in core knowledge assets, and socio-political structures affecting how efficiently knowledge assets can be combined to give new innovative outcomes. Where wider social and political structures fail to support the core of interacting innovators this may create negative economic externalities, including insider-outsider problems, principal-agent problems, rent-seeking, free-riding, clientelism and "lock-in" (RODRIGUEZ POSE, 2013, p. 1041, 1043). What is not well-understood is the role agency plays, when actors intervene purposively to address institutional problems and barriers and switch between economic development trajectories (HENNING et al., 2013).

These interventions we regard as a kind of institutional entrepreneurship (GARUD et al., 2007) a topic already at least partly dealt with in extant regional innovation literatures (*cf.* SOTARUTA and PULKKINEN, 2011). The concept of institutional entrepreneurship emerged around sociological discussions of "new institutionalism" within the field of organizational sociology (POWELL and DIMAGGIO, 1991; GREENWOOD et al., 2008, 2012). The concept clearly has resonances in understanding how actors may share RISs to

address underlying problems. Whilst RIS early literatures assumed actors intervened rationally to fill system gaps, (MORGAN, 1992, 1997; HASSINK, 1993), dissatisfaction emerged around assumptions that regional partners would work effortlessly together, especially given the tensions and conflicts evident in any political/ policy process (LAGENDIJK and OÏNAS, 2005; SOTARUTA and SRIVINAS, 2006; BENNEWORTH, 2007). More recently, concepts emphasising regional agency and selectivity have emerged such as constructed regional advantage and smart specialisation (LAGENDIJK, 2006; ASHEIM et al., 2011; MCCANN and ORTEGA-ARGILES, 2013) where agency emerges from regions' institutional entrepreneurship efforts to improve their positioning in international innovation/production networks.

We here conceptualise institutions as the “rules of the game”, habits, norms, regulations and laws that influence behaviour and relationships, in this case between organisations such as firms, universities and public organisations (EDQUIST, 2005). Institutional entrepreneurs are actors able to mobilise resources and use actionable knowledge to create or transform institutions (SOTARUTA, 2011; KARLSEN et al. 2012). RIS institutional entrepreneurship processes represent purposive attempts to mobilise coalitions to address failures by local partners to participate effectively in global innovation and production networks (LIVI et al., 2014). Place-based leadership emerged to explain both why some places in general perform better than others but also why some places have a better capacity than others to implement purposive actions to improve their regional innovation environments (NORMANN, 2013; BEER and CLOWER, 2014).

Place based leadership can be understood as a form of shared leadership with many different independent actors participating to influence each other often exercised during attempts to agree and deliver collective goals and strategies. It is a shared process because no single actor has the power to compel others towards particular behaviours. It is collective because

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Finally, an emerging social innovation literature began emphasising how social innovation's underpinning inclusive governance and dialogue processes have broadened regional innovation concerns beyond technology approaches (DRUCKER, 1987; KARLSEN and LARREA, 2014; MOULAERT and NUSSBAUM, 2005; MOLAERT et al., 2005, 2013).

interdependent actors must collaborate to attain an objective which would otherwise remain unattainable (DOYLE and SMITH, 2001; PEARCE and CONGER, 2003, KARLSEN and LARREA, 2012). Leadership in this context does not refer to formal authority but capacity to exert influence in other organisations where direct authority cannot be exercised (PEARCE and CONGER, 2003) (SOTARUTA, 2005). Shared leadership can be created on a long term basis, yet long term does not necessarily mean in perpetuity (KARLSEN and LARREA, 2012).

To link with RODRIGUEZ POSE'S (2013) idea of 'institutional failures', we frame leadership as one specific type of institutional entrepreneurship creating new (semi-)collective institutions, in part by reshaping institutions' own internal activities (*cf.* ALDRICH, 2012) to address these regional failures and their negative consequences. Leadership remains a relatively under-theorized concept in regional studies (SOTARUTA, 2014), remaining tied to outcomes-based definitions where more successful regions have "better leadership" (BEER and CLOWER, 2014). This clearly risks failing LAGENDIJK and OÏNAS'S "happy family stories" criterion (2005) in assuming that a particular set of (micro/ meso) institutional practices cause better (macro) regional performance.

To address that issue, we argue that place-based leadership is effectively an emergent role not always played by those formally designated as leaders. Individuals' ability to exert leadership, both within an organisation and across the various regional coalitions in which they participate is influenced by two factors:

- (a) the organisational architecture or internal structures, but also
- (b) how they can reshape internal structures to create cross-organisational institutional spaces for action.

We therefore contend that meaningful place-based leadership in RISs may potentially contribute to addressing existing inflexibilities in wider RIS structures via these processes of institutional entrepreneurship. These inflexibilities may include:

- A lack of collectively held new cultural-cognitive understandings of the role that regional actors can play in a globally-oriented knowledge economy
- Missing structural elements in the RIS governance system allowing underpinning collective search (smart specialisation/constructed regional advantage) activities
- A lack of understanding of potential opportunities for better exploiting regional knowledge to drive innovation-based regional economic development
- A failure of local actors to collaborate collectively to position themselves in emerging high-technology niches with economic development potential
- A failure to mobilise collective/share resources and co-investments to underpin innovation-based economic development.

We therefore refine our overall research question into the specific question of how can universities contribute to addressing inflexibilities in RIS structures via processes of institutional entrepreneurship? Universities may have much to offer regional coalitions and solutions, universities are not simple and biddable organizations (PINHEIRO et al., 2012b) but understanding why universities might choose or refuse to engage requires understand the individual and institutional cost-benefit calculi around the tensions and problems brought by regional engagement.

The role of universities in place-based leadership is more complex than some strategic narratives suggest (e.g. GODDARD & VALLANCE, 2013). Universities are not simple biddable organisations; whilst a firm can instruct their employees to make institutional resources externally, universities' key resources (knowledge) are held by individuals with

high levels of autonomy reducing their amenability to meaningful management control (PINHEIRO *et al.*, 2012a). This resource-diffuseness creates a specific tension for universities seeking to engage in influencing and collaborative processes within shared territorial leadership. If a researcher does not want to do regional research, then university management has few resources at their disposal to directly mandate that.

3. UNIVERSITIES' CONTRIBUTIONS TO REGIONAL INNOVATION

SYSTEMS AND ORGANIZATIONAL DYNAMICS WITHIN UNIVERSITIES

Governments have increasingly turned towards universities to stimulate regional economic development, both providing direct inputs to innovation system processes and improving framework conditions (GUNASEKARA, 2006; ASHEIM *et al.*, 2010). Earlier studies suggested universities could contribute to improving regional innovation governance structures, strategic development (e.g. smart specialisation strategies) and collective/co-investments for innovation (OECD, 2007; BERGEK *et al.*, 2008; COOKE, 2011; MCCANN and ORTEGA-ARGILES, 2013). But universities have simultaneously faced growing governmental pressure to prioritise other strategic goals (MARGINSON, 2007; ENDERS and DE BOER, 2009); including to internationalise (TADAKI and TREMEWAN, 2013), compete in quasi-markets (MARGINSON, 2004), improve their wider efficiency/quality (GORNITZKA *et al.*, 2004), and reform their internal governance structures (PINHEIRO and STENSAKER, 2013; PINHEIRO *et al.*, 2014). These regulatory pressures towards many goals alongside further pressure to strategically focus have 'overloaded' universities with new missions (ENDERS and DE BOER, 2009).

For universities to contribute to place-based RIS leadership, university regional engagement roles must be articulated more clearly as 'strategic missions' (PINHEIRO *et al.*, 2012c). Nevertheless, engagement does not fit seamlessly with other strategic missions, but what

BOZEMAN et al. (2013) call the ‘dark side of collaboration’ (p. 37) creates tensions with other university missions (GUENA et al., 2008; see also PERRY and MAY, 2006). Clearly, universities *could* contribute to addressing various RIS institutional inflexibilities, but doing so effectively demands more than just strategic articulation between universities’ activities and regional dynamics (as advocated by *inter alia* CHATTERTON and GODDARD, 2000). What is achievable depends on how universities respond to the tensions that arise in the course of engaging (PINHEIRO et al., 2012a). Table 1 provides an overview of those tensions categorised on the basis of those RIS problems facing RI, the kinds of institutional entrepreneurship processes that universities may participate in to address those problems, what universities might contribute to the (cross-organisational) institutional engagement and the private tensions that these engagements may create for the university.

Table 1: Transformative leadership processes for innovation

RIS problems in the wider social and political environment (After Rodriguez Pose, 2013)	Institutional entrepreneurship intervention in RIS	University contributions	Private tensions (coalition partners)
A lack of collectively held new cultural-cognitive understandings of the role that regional actors can play in a globally-oriented knowledge economy	Expanding regional partners' needs, aspirations and capabilities for innovation (GUNASEKARA, 2006)	Creating courses for regional employers, undertaking regional research programmes, reorienting core university activities to support the region staff going out part-time or on sabbatical to work in regional activities (ARBO and BENNEWORTH, 2007).	University over-raises expectations of what engagement will deliver: regional partners become overly critical of the university (PINHEIRO, 2012a)
Missing structural elements in the RIS governance system allowing collective smart specialisation/constructed regional advantage activities	Building a collective institutional structure to oversee progress (COOKE, 2011)	Universities participate in transversal innovation platforms direct/ manage innovation activities which produce benefits (LESTER and SOTORAUTA, 2007)	Academic collaboration is very time consuming forcing researchers to prioritise other goals: <i>academic drift</i> (ARBO and ESKELINEN, 2003)
A lack of understanding of potential opportunities for better exploiting regional knowledge to drive innovation-based regional economic development	Developing a robust regional knowledge base to exploit new global-local opportunities (ASHEIM et al., 2010).	University works with regional firms in pre-competitive research projects/ programmes in potential new combination areas creating novel knowledge pool (ISAKSEN and KARLSEN, 2010).	Academics orient career towards publication: good research does not enter regional knowledge pool (FELDMAN and DESROCHERS, 2003)
A failure of local actors to collaborate collectively to position themselves in emerging high-technology niches with economic development potential	Identifying common goals for novel global-local combinations (MCCANN & ORTEGA-ARGILES, 2013)	University provides global context and new application areas for local clusters with high-value, place-specific knowledges (CAI and LIU, 2014)	Coalition disintegrates into private interests, loses momentum, university disengages once accessed resources (BENNEWORTH, 2012)
A failure to mobilise collective/ share resources and co-investments to underpin innovation-based economic development	Mobilising collective resources to deliver needs (BERGEK et al., 2008). From bridging to co-generation of knowledge involves two types of institutional entrepreneurship (KARLSEN et al., 2012).	Universities fund shared pools, pump-priming persuades others (local/ national/ international) to contribute their own funds and invest in mixed public/private research programmes for collective benefit (GODDARD and VALLANCE, 2013)	Not aligned with academic incentives, run briefly with enthusiasm, project reaches end and stops (<i>Projectisation</i>) (CLOETE et al., 2012)

We contend that central in understanding universities' contributions to place-based RIS leadership is understanding their internal strategic decision-making calculus in balancing competing strategic internal interests, which we refer to as their 'organisational architecture' (*cf.* VORLEY & NELLES, 2012). Unlike firms, universities are not simple hierarchical entities where managers determine strategies then implemented by subordinates (BIRNBAUM, 1988; MUSSELIN, 2007). A recent tendency has been for universities to become *more hierarchical*, with authority shifting upwards from academic communities towards formal leadership positions, either at the central (Rectors, Vice Rectors, Directors) or unit (Deans and other middle managers) level (MEEK et al., 2010). Professionalising university administrative activities (SANTIAGO and CARVALHO, 2008) has contributed to increasingly dualized structures formed by with a cadre of senior academic and administrative leaders centrally coordinating and controlling academic activities (GORNITZKA and LARSEN, 2004). The aggregate effect has been to make the university more top-down than hitherto (PINHEIRO and STENSAKER, 2013). But universities remain knowledge-resource dependent, and hence dependent on choices made by their staff, with universities having relatively few ways to compel their staff to meaningfully increase regional engagement, resulting in new internal tensions and opportunities (*cf.* PINHEIRO et al., 2014).

This raises the question of how do universities' organizational architecture affect how they make their resources available to these shared innovation assets in the course of shared leadership processes. To operationalise the idea of institutional architecture, we draw on notions advanced by Clark (1998) and taken forward by NEDEVA, 2007; PINHEIRO, 2012a, b). We thus focus on four specific elements of university organisational architecture, *viz.* 'leadership', 'structure', 'agents', and 'connections' (see Table 2).

- *Leadership* – one or more senior leaders at the level of the central administration actively supporting regional engagement processes and overseeing processes by which

scarce university resources are made available to create (semi-)collective assets which facilitate regional development.

- *Structure* - administrative cadre of the university who coordinate activities internally and therefore that the directives of strategic leaders are institutionalised to co-ordinate activity/ decision-making.
- *Agents* - individuals and groups that undertake activities constituting regional engagement, including reaching out to their academic peers and in linking strategic ambitions with knowledge-related activities (teaching and research).
- *Connections* within the universities, by which we mean formal mechanisms which link up regional engagement to core activities such as teaching and learning, for example the involvement of key regional stakeholders in curriculum development or delivery.

Table 2 below shows some of the behavioural repertoires that may occur within universities, both configuring universities to better engage, but also in making university assets available in ways that create semi-collective innovation assets that also support key university interests. These issues are interlinked both with other actors internally but also externally in the region and beyond.

Table 2: The Strategic Engagement Nexus¹

	Internal Linkages (University)	External Linkages (University-Region)
Leaders	Advocating the idea of strategic regional engagement thereby legitimising the process from an organizational perspective.	Interacting with regional actors in regional engagement platform or collective activity offering university contributions to regional collective innovation assets
Structure	Developing a university strategy, deepening and formalising routings associated with regional engagement activities	Fitting the internal strategy with other regional stakeholders' own strategic interest, goals and objectives
Agents	Identification by individual academics or groups with the institutional regional engagement goals and hence being willing to engage regional, promote regional engagement ethos or culture	Active scanning by enthusiastic academics of the regional environment to create new opportunities by engaging with regional partners
Connections	Formal mechanisms ensuring that regional engagement activities are part and parcel of core teaching and research activities e.g. in teaching committees	Formal mechanisms for bridging structures and activities across the academic core to the outside world (strategic regional partners and place-based initiatives)

University regional engagement *can* create two distinct sets of tensions, each associated with the two kinds of behavioural repertoires. The first are internal to the organization, associated with tensions in how different groupings and domains of academics perceive the value of regional engagement. The second set are external, produced by “the clash of logics” between academic groups’ agendas and those of regional actors such as firms. A typical example of the former might be that perceptions that a strategic ‘top-down’ regional mission breaches traditional academic norms and values, whilst the latter may be the mismatch between external regional partners’ interests in pragmatic results in contrast to academics orientation towards scientific excellence (*cf.* STOKES, 1997). Institutional entrepreneurs (BATTILANA et al., 2009) within the university may play a critical bridging role helping establishing

¹ Following micro-institutionalism (Powell and Colyvas, 2008; Battilana 2006), we are not only interested in the types of actors (and roles) involved but more importantly the *functions* – internal and external – they perform

regional coalitions to drive on mutually beneficial projects and activities able to address RIS institutional inflexibilities. To further explore how internal agency in this institutional setting contributes to RIS transformation, we subdivide our overarching research question as follows:

- By which processes are key actors at various levels of the university actively engaged with regional coalitions?
- What role do university actors play in initiating and nurturing emergent regional coalitions?
- How can place-based leadership inform regional development theory in accounting for tensions emerging when universities engage with RISs?

4. DESIGN & METHODOLOGY

We aim to understand how university structures affect how regional institutional entrepreneurship improves RIS cores' functioning (cf. HANSEN et al., 2004; KALLIO et al., 2010). Our model suggests that university organisational structures may encourage network formation subject to universities becoming involved in collective regional mobilisations that have an institutional entrepreneurship effect. We limit our focus here to the process's first stage, namely where institutional entrepreneurship improves a RIS by creating new internal and external arrangements facilitating better interaction amongst regional actors.

Our study considers how individual relationships' micro-dynamics are affected by the wider institutional settings within which individuals operate at regional and organisational (university, firms, local government) levels. We conceptualise our independent variable as universities' organisational architecture in terms of the qualities and characteristics of a university's 'strategic engagement nexus' (cf. Table 2). Our corresponding dependent variable is the exercise of agency by individuals participating in emerging processes of

regional place-based leadership. A major novelty of our contribution lies in considering the ways in which the tensions we identify – and university actors’ attempts to address them – create adequate conditions (strategic opportunities) for regional institutional innovation . Over time, such processes may affect (following Rodrigues-Pose, 2013) – whether or not positively– RISs’ internal functioning, thus contributing or hindering regional economic development.

Since little is known concerning how these two variables relate in the broader context of RISs and regional development, our study is exploratory . We previously set out a framework for considering how university structures could potentially affect regional network-building via institutional entrepreneurship processes. We test this idea through a multiple case study analysis (STAKE, 2006); rooted in critical realist perspectives (SAYER, 2000), we use thick description to understand whether these theoretically-articulated processes function as expected, and modify our model following our empirical observations. We focused on three regions where perceptions of “crisis” has driven conscious attempts by regional partners – including universities – to address regional institutional inflexibilities. Apparently sincere efforts by universities in these three regions, to create new innovation networks revealed interesting tensions germane to our conceptual approach.

Understanding how institutional structures affect the exercise of agency requires longitudinal analysis, so we chose three regions where we have already separately undertaken multi-annual case study research around university-regional engagement (PINHEIRO, 2012a, b; BENNEWORTH and HOSPERS, 2007a; 2007b; BENNEWORTH & RATINHO, 2014). Data was drawn from a variety of sources ranging from face to face interviews with key actors in each region/university, university policies and strategies, as well as earlier investigations (peer review articles) and official statistics and reports. We are clearly conscious of the limitations of reusing and repurposing data to create a comparative study

where that was never the original intention, but we justify this as providing a depth of data and insights into regional changes allowed by a deep longitudinal analysis. We nevertheless acknowledge that these limitations demand we remain modest regarding our findings being suggestive rather than conclusive.

5. CASE STUDIES

The cases are from Twente (Nederland), Tromsø (Norway) and Oulu (Finland).

5.1. Twente

The University of Twente's place-based leadership emerged via secure resources necessary to completely rebuild the campus at a time of budgetary austerity. The university had had a strong regional role since its creation in 1961 to revitalise and then later replace the dominant regional industry, textiles. From 2001, a set of crisis events had mobilised regional partners – local municipalities, the inter-municipality regional organisation, the province and regional development agency, the science park – to create a common regional innovation agenda as a focus for attracting additional national and European subsidies (*cf.* BENNEWORTH & HOSPERS, 2007b).

The University was a key partner in the emerging strategic agenda, playing several important roles. These included creating high-technology, innovative businesses, providing skilled technical graduates, contributing to solving firms' innovation problems, investing in new businesses and providing key infrastructures such as nanotechnology and virtual reality laboratories. The university mobilised a number of knowledge communities spanning academics, students and firms, communities which contributed to core university activities, teaching and research. These also supported applied research and technology transfer activity including creating a large number of spin-off companies.

To build change agents to support this emerging agenda, the university in the late 1990s had created a set of ‘spearpoint institutes’ in areas where it believed it was scientifically strong. By the mid-2000s, these each were organised as key university organisations with Scientific Directors (part of the university senior management group) alongside Commercial Managers to stimulate entrepreneurship. These new commercial directors formalised UT’s regional engagement routines, and developed institute-specific infrastructures and support systems to encourage entrepreneurial, engaged behaviour by participating staff. They also sought to co-ordinate the underlying knowledge communities around the university, most notably by organising knowledge production activities (research) more systematically to better appeal to external research funders and firms. The university also directly supported those active in engagement activities, with particular successful entrepreneurial professors well-recognised by senior managers and publically praised at key university events such as the Opening of the Academic Year, the Anniversary (*Dies Natalis*) or the Laureates’ Day.

The university entered into a strategic relationship with the municipality. There was an overarching structure of an office comprising secondees from the university, city and regional government. This organisation (called *Kennispark* or knowledge park) supported particular activities mobilised within the individual Spearpoint Research Institutes (and sometimes jointly between them) to address issues of content. The university also actively enrolled Dutch government, and in particular, the Ministry of Economic Affairs, to externally validate and legitimate UT’s regional engagement activities as best practices of innovative technological entrepreneurship. A regular series of high-profile Ministerial visits and funding announcements were made on the UT campus, including the Minister for Economic Affairs presenting a long-standing university award for regional entrepreneurship (the Van den Kroonenberg prize) in 2007.

But a number of tensions became clear in the course of university attempts to reorganise its regional engagement to contribute more directly towards supporting two key university missions, namely increasing research grant income, and securing resources for the campus redevelopment. The Spearpoint Institutes were by necessity closely aligned with external research funders' agendas, those of the Dutch industry and education Ministries, as well as European Framework Programmes. As a result, university research staff had little flexibility to create common research agendas in new technological areas aligned with regional needs that either deviated substantively from those external research agendas or created new basic research funding programmes aligned with regional partners' needs. Certainly, there was a limited scope to 'bend' university research activities to meet regional needs at the potential expense of excellence, and much effort went into the converse, conditioning regional partners to support activities which increased research institutes' capabilities to attract fundamental research grants.

At the same time, devolving regional engagement to Research Institutes removed strategic oversight by university leaders of what (some) staff were doing, creating effectively two tiers of engagement activity. University leaders were acutely aware of activities in which the university had a financial commitment, including large infrastructure investments, seed-funding in spin-offs and industry-financed research programmes. Indeed strategic university pronouncements regarding regional engagement primarily focused on these 'big ticket' items, with two slightly perverse effects. The first was reducing the idea of regional engagement to a very simplistic set of 'generative contributions', working with firms already experienced in innovation rather than a more sophisticated reality of creating new kinds of innovative company. The second was that it ignored regional contributions of staff working with the public sector and civil society or indeed with firms through non-contractual arrangements.

The third tension was a further consequence of senior managers' 'big ticket' focus. Funding campus redevelopment involved charging substantial overheads to all departments and research groups to upgrade the region environment. Only some groups (those requiring large research infrastructures) benefited from this upgrading, typified by the creation of the nanotechnology laboratory MESA+; those physical developments also came with medium-term operational dowries increasing their research opportunities. Although beneficiaries were enthusiastic about the benefits of regional engagement, other groups found themselves in a perverse position of their regional engagement work being heavily charged via overheads to fund other groups' core research activities.

A fourth tension emerged in the wake of a deep-seated crisis in the university technology transfer office in 2005. It was precisely at that point that the idea for a Kennispark crystallised around an integrated set of technology transfer activities moved to Kennispark to separate them from the university and isolate the wider consequences of this legitimacy crisis. This created a clear split between *Kennispark's* real estate goals and the operational technology transfer goals which were largely driven by subsidy availabilities. Whilst Kennispark's real estate development stayed largely unchanged with respect to the original goals, its technology transfer development aspects primarily related to the availability of subsidies. This created an internal boundary within the Kennispark arrangement that each individual project faced.

The final set of tensions lay in the internal legitimisation structures for regional engagement within the university, and in particular the emergent legitimisation of particular individuals who had been successful in winning regional funding that supported those 'big ticket' items. This created a strategic disconnect between those senior university leaders who engaged regionally to secure funding for these infrastructures, and those who engaged regionally in the course of their own research activities. A research group in urban governance was heavily engaged with regional partners, but the effect of this strategic framing limited the extent to which they could

contribute to place-based regional leadership. A neat illustration of the problem came around local attempts to redevelop a local military airbase as an airport, and which local politicians made an integral part of the regional innovation plan. Whilst some academics' research called into question the airport's viability, the university's strategic need to access regional innovation funding necessitated strategic support for the airport plan.

5.2. Tromsø

In 2006, the Norwegian government launched a comprehensive strategy – focused around knowledge creation and exploitation– for exploiting the 'High North's emerging opportunities (a transnational geographic area spanning the Arctic and the Barents Sea). In parallel, the Ministry of Education and Research had asked an independent commission to consider the future of Norwegian higher education with recommendations on how better organisational the existing institutional landscape to meet Norway'.

The University of Tromsø's (UiT) central leadership structures (led by the Rector) responded proactively to exploit the opportunities these two external events offered. The first step was mobilizing a regional coalition of key public and private sector actors from university, industry, local government to agree on a common strategic platform or vision ("a knowledge-based High North region") and allocate roles and responsibilities. This approach represented a significant break from previous practices, where regional actors had often competed with one another rather than collaborating. This process saw the university agreeing to adopt a critical role in developing localised knowledge-based (physical, technological and human) infrastructures to support the city of Tromsø functioning as a knowledge hub in and for the High North of Norway. Secondly, UiT agreed to initiate discussions with a number of regional university colleges locally with the aim of using mergers to increase UiT's size to reposition it as the dominant 'knowledge hub' in the High North region.

During this period, UiT's central leadership, particularly its Rector, were particularly active in attempting to drive change. This partly involved raising local awareness towards the changing policy environment and domestic higher education landscape and hence sensitivity to the potential opportunities on offer. By articulating the regional interest in national media discussions, the UiT leadership also became the *de facto* public face for Northern Norway. The Rector took full advantage of privileged access to governmental decision-making structures provided by his *ex officio* roles as Chair both of the regional advisory council for the High North Strategy as well as the Norwegian Association of Higher Education Institutions (UHR, represents higher education's collective interests to government). In 2009, the university adopted a new strategic and operational platform for the period 2009-13. UiT's new vision statement was as "a national and international engine for knowledge growth and innovation in the High North"². In parallel with this, UiT made efforts centrally to clarify and communicate its missions related to external events, stakeholder demands, and internal capabilities and traditions. UiT particularly emphasised in this a number of research units of regional relevance, including Rural Medicine, High North Operations, and Marine Resource Management. Similarly, both undergraduate and graduate programs in areas spanning disaster management, Arctic aviation, and entrepreneurship have recently been established to improve UiT's regional contribution. Finally, UiT also adopted a new set of new administrative rules and procedures with the intention of allowing UiT to be more systematic in the ways it could engage with regional actors across public and private sectors.

These centrally-driven changes saw UiT also creating the conditions within which a new set of tensions emerged. The first set of tensions emerged as a result of the effects that dependence on the resources of external stakeholders' with their own distinct agendas brought

² In Norwegian: «Vi skal skape et nasjonalt og internasjonalt kraftsenter for kompetanse, vekst og nyskapning i nordområdene» (UiT 2009a: 2).

to the university. Some university units, most notably natural sciences, set a cap on the maximum amounts of external contributions to research to prevent possible drift away from academic missions. These rules were created as a specific response to allow external research to have legitimacy within the university by guaranteeing a minimum level of academic autonomy. This in turn specifically deal with challenges to regional engagement by ensuring the notion of knowledge as a public good was central to any university knowledge processes.

Secondly, the increasing centralization of decision making within the university also became a flashpoint for dissent. A number of key academic researchers began to feel increasingly uncomfortable that the central administration had not sufficiently and appropriately consulted them in setting its key strategic priorities. Clearly, to these academic actors, there were risks in responding to the opportunities offered by mergers and the High North strategy in primarily opportunistic ways. This risked losing academic direction and coherence, and ultimately playing to long-standing raising academic fears regarding the university's longer term viability.

A third tension emerged around efforts to find an adequate legitimate balance between core missions (teaching and research) and peripheral missions, particularly regional engagement. A number of interviewees, including some within central administration, highlighted the difficulties that existed in serving the region (something experienced as a 'duty' by the university) whilst also meeting the needs of its students, often more complex than traditional students in large Norwegian cities. The university chose to address this by trying to link core teaching activities to regional engagement, creating continuing education pathways involving junior and senior academics, or putting explicit regional dimensions and activities both into degree programs and research activities.

Finally, tensions between global excellence and local relevance played out in Tromsø in a very specific way. A number of highly regionally engaged academics in UiT were unable to use their regional engagement to revitalise their core research activities. For example, a social scientist who was engaged in continuing education as well as applied research for the local military found that demands of teaching and research made it hard to infuse regional knowledge into those activities. Although part of this reflected problems in UiTs formal structures acknowledging local knowledges legitimacy, part of this arose simply because academics found it easier to separate out these activities rather than spend time negotiating the structural challenges. Shortly before the time of writing, the central administration reorganised UiT to integrate previously independent regionally-focused research centres (including Sami Studies and the renowned Barents Institute) into faculty-based structures. However, those changes immediately subjected these often very applied regional researchers to a set of academic pressures to be globally excellent. A number of actors reported that regional dimensions were becoming increasingly relegated to the periphery of these broad centres primarily hiring international talent and with a global scientific locus.

5.3. Oulu

In Oulu, regional coalitions involving the university, local government and industry first emerged in the late 1980s when local actors sought to shift their relations from a competitive to a more competitive basis. Over time this coalition sought to develop network-based arrangements – both formal and informal- that provided the basis for this collaborative culture. The aim was to have open communications, trust and a shared sense of local identity and destiny – as one interviewee noted, to embody a sense that ‘we can do it, and we are in this together’. The university is often considered to be one of the key components of the so-called ‘Oulu success story’ (SALO, 2003), an explanatory narrative of why the region has emerged as the most innovative (R&D per capita terms) region of Finland.

Higher Education in Finland underwent a substantive set of changes in the 1990s, with the system becoming more market-based. UO responded by seeking systematically become a more “regional” university with substantive links to regional partners. One important element of this included creating new basic and applied research centres focusing on knowledge creation and transfer that would bring value to regional stakeholders in both public and private sectors. This, in turn, was backed up with administrative infrastructures for promoting a range of research and innovation efforts (commercialisation and technology transfers included). External actors including local government and industry were critical in this regard by financially supporting these internal university structures; for example, the cases of UO’s research and innovation office and business studies.

More recently, the Oulu coalition re-emerged, this time in response to a confluence of economic pressures in the wake of the global crisis along with a further restructuring of the Finnish domestic higher education landscape seeking to make it more ‘world class’ (CREMONINI *et al.*, 2013). In many of these mobilisations, UO’s central administration was to play a leading role (Rector, Vice Rector for Strategic Engagement, etc.) as well as initiatives taken by key academics within engineering and technology fields. A series of new strategic research partnerships were launched involving regional actors (e.g. the Centre for Internet Excellence/CIE³ and the Oulu Innovation Cluster⁴). Efforts to create new strategic momentum also involved a series of internal restructuring around the notion of a matrix organisation. This included creating :

- interdisciplinary graduate schools (focusing on the nurturing of future scientific talents),

³ “CIE provides a unique environment to combine research and network partners from different fields in a practical setup, where idea creation, observation, measurement and validation is enabled for user-centric innovation and design.” <http://www.cie.fi/aboutus.php>

⁴ Chaired by the Mayor of Oulu, the alliance directly addresses national policy imperatives for furthering the collaborations across regional knowledge and industrial sectors.

- interdisciplinary research centres (where collaboration with other knowledge producers is to occur), and
- applied innovation centres, geared towards the joint creation of knowledge together with industry and technology transfers to the outside world.

Despite these internal changes made to better position UO in the regional coalition as well as seeking world class status, a number of tensions became evident. Firstly, despite strategic intentions and a high level of managerial commitment towards regional development issues, there were not suitable internal promotion and incentive systems centred on engagement or ‘third mission’. In late 2009, the university had attempted to institute a new series of internal evaluations around the degree and nature of academics’ engagement, yet internal awareness of these measures was in its infancy. Some local academics indicated that traditional performance measures (scientific publications) remained the key criteria for professional promotion and peer status are concerned.

The second set of tensions relate to the needs and expectations of external stakeholders, particularly local industry. First-hand accounts from the faculty of engineering suggest that efforts to revise curriculum structures in light of local industry needs (e.g. Nokia’s mobile phone division, in Oulu since the early 90s and until very recently] have not benefited graduates, as the needs of industry kept on changing, thus leaving these graduates “locked-in” with specializations (‘the ideal Nokia engineer’) for which there is no longer employment possibilities.

The third set of internal tensions is associated with the fact that, in the eyes of some academics, regional engagement has become a target of too much strategizing at the level of the central administration and the exclusive territory of a few senior administrators and academics. For example, some reflected on the fact that decision making procedures (e.g.

around key strategic areas of regional relevance) were increasingly becoming centralised with little consultation across the academic heartland or sub-units, and that access to regional coalitions involving public and private sectors alike was rather restricted to a small group of influential individuals (often with a long history of engagement) both within and outside the university.

Finally, a number of internal tensions have come to the fore as regards the long-term scientific value (for the university) of academic engagement. A 2007 internal research assessment exercise (RAE) revealed, somewhat surprisingly, that academic groups such as engineers that have traditionally been highly engaged with regional partners like industry have, for the most part, failed to use strategic partnerships as a means of enhancing the scientific profile and competencies of their respective academic units. This has led many within UO, including the central administration, to critically question the long-term value of strategic engagement with regional actors in the absence of mechanisms aimed at bridging local relevance with global excellence. This issue is even more prevalent as the university recently announced its ambition to become ‘world-class’ around a number of key scientific areas.

6. ANALYSIS

The cases demonstrate that place-based leadership on the one hand is time specific and intrinsically dependent on the distinct characteristics of the RISs in Twente, Tromsø and Oulu. On the other hand, it is linked with historical trajectories or path-dependencies of both the case universities as well as the regions in question (*c.f.* KRÜCKEN, 2003). It is also important to take into account that the processes described above are also connected to previous historical development processes of RIS (e.g. decisions in the 1980s around the location of Nokia’s mobile phone division and the VTT in Oulu) and earlier place-based leadership initiatives or the lack thereof. This, in turn, makes each process context specific

and the development of the various RISs can therefore only be understood when taking this uniqueness into account (*cf. inter alia* STORPER 2009).

Nevertheless, it is possible to identify some common dynamics and also the tensions that arise to serve as the basis for a more nuanced reflection on university contributions to place-based leadership within RIS. The core of the process lies in actors within the university seeing advantages to them in being associated with newly constructed networks (BATTILANA et al., 2009). The social positions (legitimacy) held by academics, rectors and senior staff - both within the university and as part of regional coalitions - enables them to exercise agency within place-based leadership whilst pursuing their strategic goals (BATTILANA, 2006). But our cases empirically demonstrate that there were no such thing as singular university goals – each university hosted communities with different and even divergent interests and goals (PINHEIRO et al., 2012). The tensions emerging from these divergent goals – and the framing effect that the overall topology of divergent goals within a university has upon the exercise of individual agency (BECKERT, 1999) – affect universities' contributions to place-based leadership, albeit differently depending on the context (consult table 3).

In the case of Twente, there were potentially tensions between the strategic goals of the university to secure its own survival, and academic decision-making about the construction of research agendas and research projects. In Tromsø, there was a clear problem which emerged in handling actors who had a very strong regional relevance who at the same time lacked strong global scientific relevance, and therefore had difficulty justifying their position within the university. In Oulu, one tension emerged in the time-scales of research, between relatively short-term exploitation of knowledge to meet regional needs, and the longer-term process of exploring knowledge for its later exploitation.

A second issue related to the nature of *who* the regional actors were and *what* happened when regional demands changed. In all three regions, this occurred at different levels, both at the level of what their regional “users” such as firms were demanding in response to changes in their wider innovation networks, but also at the level of changing political and policy environments. In all three universities there were examples of university staff attempting to engage regionally and create networks who saw their efforts undercut by unpredictable political changes. Indeed university networks and structures were negatively affected by external changes over which the universities had relatively limited control.

Table 3: Key tensions identified across cases

Tension (institutional dimension)⁵	Twente	Tromsø	Oulu
Between local relevance and global excellence	Limited scope to ‘bend’ core research activities to address regional needs (a case of regional support for core functions instead)	Engaged units – political scientists - failed to develop scientific excellence	Engaged units – engineers - failed to develop scientific excellence. Scope of regional research stations (resource allocations)
Between strategic ambitions for the future and current engagement patterns	Emergence of two tiers of engagement activity, with the strategy focused on a very narrow version, overlooking most of the other kinds of engagement.	Centralization of strategic decisions (heartland bypassed) but interpreted in ways that engagement was nice to have rather than essential	Centralization of strategic decisions, including major structural changes (managerialism prevails over professionalism)
Between those that benefit and those that are penalised by regional engagement being legitimate	Pure engagement work heavily taxed to subsidized core research activities; real beneficiaries those doing pure research with strong applications	Some fields (natural sciences) caped external funding whereas others (humanities) struggle to find external sponsors	Strong fields like technology/medicine expected to cross- subsidized struggling fields like humanities Entrepreneurial ethos clashes with egalitarian traditions
Between engagement integrated in core tasks and engagement delegated to peripheries and projects	Technology transfer function dependent on the availability of subsidies (“projectisation”)	Leading academic actors set informal precedent that engagement should not be done at the expense of core (T+R) activities	Changes in curriculum structures aligned with industry needs had negative effects on graduate employability

⁵ Given the conceptual focus of this paper, namely the interplay between place-based leadership and institutional entrepreneurship, we make an attempt to link the identified tensions to key aspects associated with organizational institutionalism (Greenwood et al. 2008; Greenwood et al., 2012).

A third tension was the issue of ‘emergent principle-making’ for university regional engagement, that is to say decisions taken on the basis of what were often very pragmatic choices very quickly became enshrined as matters of principle, forgetting the contingency with which those principles had been set. All three universities defined very general principles of regional engagement in terms of what had been successful in the past, largely in ways of securing funding but all related to serving core institutional goals. This, of course, fits with what is known already as universities as sites of what SOTAURATA (2014) has described as ‘emergent leadership strategy-making’ (*cf.* MINTZBERG and ROSE, 2003), based on learning processes (MINTZBERG and WATERS, 1985). However, this also had a counter effect of implicitly framing other kinds of place-based leadership as being incompatible with or irrelevant to the core university mission (BENNEWORTH, 2012), and introduced an additional degree of inflexibility when emergent regional missions and mobilisations did not fit well with RIS needs and gaps.

Each of these tensions affected university actors’ capacities to participate in place-based leadership, and consequently the ways in which they were capable of exercising influence beyond university boundaries, i.e. as actors embedded in regional coalitions. An overarching point is that clearly, university strategic leaders had the opportunity to balance the tensions and interests in ways that maximised regional benefit in terms of best filling RIS gaps. But, clearly, the universities’ main interest was not always in maximising the regional benefits (PERRY, 2012), because of their dependence on other stakeholders more important than regional ones (such as education ministries but also research funders beyond the region). In the context of the university having a range of divergent goals, regional actors having shifting goals and the importance of emergent leadership, universities’ contributions to these processes appears to be in offering ‘learning arenas’ where regional partners can work together on projects, address these tensions, identify potential successes and move them

forward. It is in the context, we would argue, that approaching place-based leadership as shared leadership practices makes sense, and provides opportunities for further theorisation as well as future empirical studies. Thus, the issue is not so much whether university actors actively participate in formal and informal arenas that are conducive to aiding regional development and innovation, but, most importantly, that in so doing, they are able to exercise influence as far as key *regulative* (policies), *normative* (goals and aspirations) and *cultural-cognitive* (regional identities) dimensions are concerned; hence, acting as institutional entrepreneurs that actively shape the structural conditions – internal (university) and external (region) alike – in which they operate (GARUD et al., 2007).

At the same time, the issue of configuring ‘learning arenas’ in ways that fit with universities’ core interests remains problematic. In other words, our cases reveal that institutional change (MAHONEY and THELEN, 2010) – even when instigated by rather influential groups of actors within the RIS (such as regional coalitions) – takes a considerable amount of time, thus shedding light on the resilience of institutionalised arrangements (SCOTT, 2013), and the need to approach such strategic ambitions (e.g. by policy makers and institutional managers alike) from a long-term perspective. In other words, universities’ capacities to exert place-based leadership is also influenced by individuals’ capacity to exert institutional leadership, and in particular, to remake universities’ organisational architectures in ways that facilitate regional engagement. That’s not just about the formal creation of structures, committees and offices for engagement, but also about the informal dimensions of making sure that engagement is a valued and legitimate activity for the university.

Comment [RP2]: This is Paul’s comment for point 7, with some minor modifications resulting from our skype call.

7. CONCLUSION & STUDY IMPLICATIONS

Our aim in this paper is not to understand the unique development of each RIS, but instead to connect the cases to a broader theoretical discussion in the context of place-based leadership,

and in particular the question of how does organisational architecture affect individuals' capacity to exercise institutional change. Despite the limitations associated with our case studies, a number of tentative conclusions can be advanced.

First, universities' engagement in place-based leadership is a result of institutional change processes. Some of these processes are located in the region (e.g. expectations by regional actors, recruitment of students, etc.), while others originate from the outside (e.g. competition for talent and funds). Yet, the interplay between them creates a pressure within the university to engage in place-based leadership initiatives. The third mission statement is one example of an external, national and international formal institutional change pertaining to the ways in which university systems the world over are currently being transformed (ETZKOWITZ, 2001; ENDERS and BOER, 2001), while crisis in the region is an example of an internal, economic institutional change (MARTIN, 2012). This has important consequences for place-based leadership as an emergent process (cf. SOTARAUTA, 2014), because universities' contributions to those processes are embedded within the wider interest networks by which they experience these new pressures.

Second, the cases show that universities' motivations to engage in place-based initiatives are manifold and complex. They are connected not only to third mission institutionalisation processes (PINHEIRO, 2012), but also to the need for external funding and the division between academics and administration. They also relate to division within universities between academics engaged in regional development processes versus the ones that are not engaged (because they are unwilling and/or unable to do so). For those that are engaged, there is a difference between those that use their regional engagement to revitalise and add value to their core (teaching and research) activities and others that have failed to do so and therein become marginalised within the institution. Those differences are something that are clearly potentially controllable by universities, and effective exercise of place-based leadership by

Comment [RP3]: Check correct reference in list of references!

universities involves creating a facilitating environment for engagement by key linking actors (BEER and CLOWERS, 2014; SUVINEN, 2014) that at the same time fits with stakeholders' needs and expectations.

Third, and aligned with the need to move beyond the 'happy family stories', 'happy network' or 'happy regional innovation system' (as highlighted earlier), the cases suggest that active engagement within the region – in the form of place-based leadership – contributes both to the resolution of existing internal tensions within the university (e.g. scarcity of funding) as well as with the RIS (e.g. need to diversify/smart specialization). Yet, at the same time, these engagements create new activities and behaviours that can also function as entanglements, thus adding further complexity into the already complex organisational architecture of the university, e.g. the multiplicity of functions, some of which are at odds with one another (CASTELLS, 2001; KRÜCKEN et al, 2007). This, in turn, results in new internal tensions, which, could potentially result in negative consequences on initiatives geared towards place-based leadership.

Turning back to the research question posed at the onset, our cases demonstrate that the specific organizational architectures of universities as both organizations (structures) and institutions (formal and informal rules) shape the ways in which university actors exercise shared leadership with the aim of aiding regional development and innovation. A number of aspects are worth stressing in this respect. First, professional organizations like universities (but also hospitals, schools, etc.) create structural barriers to the exercise of traditional top-down decision making associated with classic conceptions of leadership in organizations. Second, in contrast to firms and bureaucratic organizational forms, like government agencies, hierarchical relations are less pronounced within universities and between these and other regional actors, thus the traditional distinction between formal leaders and followers does not apply. Third, shared leadership is particularly relevant in a context where university actors are

free to choose their degree of engagement with regional development issues (as active members of regional coalitions), and where the power to persuade others – both within the university (academic peers and administration) as well as the region (coalition actors) – is vested on one's knowledge and competencies rather than the social position that one occupies, as is the case of formal leaders (cf. BATTILANA, 2006).

Going forward then, it is critical to understand the way in which regional co-mobilisations create regional institutional change, and hence the effects that place based leadership can have on both the organizational architecture of the regional actors involved with such processes (not only universities, but also firms, local government, etc.) as well as regional development trajectories more broadly. This, in turn, demands a better understanding – theoretically and specifically – of the way that regional actors' needs' fit together not only locally, but within actors' wider sets of relationships with much broader sets of stakeholders. Given the importance of the emergent nature of place-based leadership (SOTORAUTA, 2014), there is a risk that analyses focus overly on *process* at the expense of the *content* and *dynamics* of activities (including internal and external tensions) that can hold these diverse networked interest coalitions together to deliver outcomes that might potentially contribute to regional institutional thickness and social capital.

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